

Applicant : Patrice Roussel
Serial No. : 10/032,144
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Attorney's Docket No.: 10559-644001 / P12488

REMARKS

Applicant amended independent claim 19 to recite loading a plurality of groups of bits from a source into a plurality of non-contiguous groups of bits of a destination register and duplicating the plurality of non-contiguous groups of bits in the destination register into subsequent groups of bits in the destination register.

Support for this amendment is found, for example, at pages 16-20 of the application. Independent claim 73 was similarly amended. Applicant also amended claims 19-23 and 73-46 for greater clarity. Further, applicant cancelled without prejudice claims 77-82, and added new claims 83-92. No new matter has been added. After these amendments, claims 19-23, 73-76, and 83-92 are pending.

The examiner objected to claims 19 and 77 under 35 U.S.C. §112, second paragraph, on the grounds that the wording "the 2N-bit wide first extended multimedia destination register" in claim 19, and "the destination register" in claim 77, each lack an antecedent basis. Applicant's amendment of claim 19 and cancellation of claim 77 have overcome the examiner's objections.

The Examiner rejected claim 19 under 35 U.S.C. §102(b) as being anticipated by European Patent Application No. EP 0 743 594 A1 to Sidwell et al. The examiner also rejected claims 20-23, and 73-82 under 35 U.S.C. §103(a) as being unpatentable over Sidwell.

Applicant's independent claim 19 recites loading a plurality of groups of bits from a source into a plurality of non-contiguous groups of bits of a destination register, and duplicating the plurality of non-contiguous groups of bits in the destination register into subsequent groups of bits in the destination register. For example, as explained in page 17, line 20, to page 18, line 19 of the originally filed application, in one situation a source may include four groups, numbered 0-3, arranged in the order of 3/2/1/0 (3 being the most significant group). Applicant's method, as defined by amended claim 19, may be used to cause groups 3 and 1 to be loaded into groups 2 and 0 of a destination register (assuming, in this example, that the destination register has the same bit-length as the source). Groups 0 and 2 of the destination register are non-contiguous groups. Groups 0 of the destination register is then duplicated and stored in group 1 of the destination register. Similarly, group 2 is duplicated and the copied value is stored in subsequent group 3 of the destination register. Thus, after performance of the method described in claim 19, the resultant destination register holds the value 3/3/1/1.

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Sidwell, on the other hand, describes instructions that are used for effecting matrix transposition operations (see Abstract). Among the instructions that Sidwell uses to facilitate matrix transposition operations is a replicate instruction that uses a replicate unit to replicate the least significant part of the source operand 8, 4, or 2 times (page 6, lines 1-3 of Sidwell). For example, the operation *rep2p* causes the sixteen (16) least significant bits of the source operand to be duplicated four (4) times so that if A represents the 16 least significant bits of the source operand, after the replication operation the resultant content of destination can be represented as AAAA.

Thus, Sidwell replicates a single part of the source operand. Sidwell neither describes nor suggests that a plurality of groups of bits of the source operand are loaded into the destination register, and certainly not into non-contiguous groups of the destination register, as required by applicant's independent claim 19. Therefore, Sidwell does not disclose "loading a plurality of groups of bits from a source into a plurality of non-contiguous groups of bits of a destination register." It follows therefore that Sidwell also does not disclose: "duplicating the plurality of non-contiguous groups of bits in the destination register into subsequent groups of bits in the destination register."

Applicant's claims 20-23 depend from independent claim 19 and are therefore patentable for at least the same reasons as independent claim 19.

Applicant's independent claim 73 recites "logic to load a plurality of groups of bits of the source into a plurality of non-contiguous groups of bits in the destination register and duplicate the plurality of non-contiguous groups of bits into subsequent groups of bits in the destination register." For reasons similar to those provided with respect to applicant's independent claim 19, at least this feature is not disclosed by the cited art. Claims 74-76 depend from independent claim 73 and are therefore patentable for at least the same reasons as claim 73.

In addition, applicant's claim 20 describes that the source recited in independent claim 19 is an extended multimedia register. Extended multimedia (MMX) registers are special registers that are designed to improve multimedia performance by enabling simultaneous processing of operand values.

On the other hand, while Sidwell shows a logic circuitry (FIG. 6) that processes source operands (see, for example, Sidwell's page 6, lines 1-2), nowhere does Sidwell disclose or

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suggest that such a source operand, even if it happens to be a register, is an extended multimedia register, as required by applicant's claim 20. Accordingly, claim 20 is thus patentable over the cited art.

Applicant's claims 21, 74 and 76 also recite "extended multimedia register." For the same reasons provided with respect to applicant's claim 20, at least this feature is not disclosed by the cited art. Applicant's claims 21, 74, and 76 are thus also patentable over the cited art.

It is believed that all the rejections and/or objections raised by the examiner have been addressed.

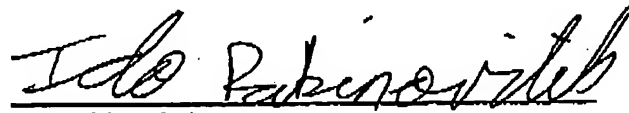
All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Canceled claims, if any, have been canceled without prejudice or disclaimer. Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Please apply any charges or credits to deposit account 06-1050, referencing attorney docket 10559-644001.

Respectfully submitted,

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